

SECTION I: MATERIAL AND MANUFACTURER IDENTIFICATION

MANUFACTURER'S NAME CPR Division, The Upjohn Company		EMERGENCY TELEPHONE NO. (213) 320-3550
ADDRESS (NUMBER, STREET, CITY, STATE AND ZIP CODE) 555 Alaska Avenue, Torrance, California 90503		
CHEMICAL NAME AND SYNONYMS Toluene diisocyanate (TDI)	TRADE NAME AND SYNONYMS (QPL 1956 Type 2 & 3) Isonate® CPR 2014, Component A	
CHEMICAL FAMILY Isocyanate	FORMULA $\text{CH}_3\text{C}_6\text{H}_3(\text{NCO})_2$	

SECTION II: HAZARDOUS INGREDIENTS*

PAINTS, PRESERVATIVES/SOLVENTS	%	TLV (UNITS)	ALLOYS AND METALLIC COATINGS	%	TLV (UNITS)
PIGMENTS			BASE METAL		
CATALYST			ALLOYS		
VEHICLE			METALLIC COATINGS		
SOLVENTS			FILLER METAL PLUS COATING OR CORE FLUX		
ADDITIVES			OTHERS		
OTHERS					
HAZARDOUS MIXTURES OF OTHER LIQUIDS, SOLIDS, OR GASES*				%	TLV (UNITS)
Toluene diisocyanate				100	0.02 ppm

SECTION III: PHYSICAL DATA

BOILING POINT (°F)	484	SPECIFIC GRAVITY (H ₂ O = 1)	77°F	1.22
VAPOR PRESSURE (mm Hg.)	0.01	PERCENT VOLATILE BY VOLUME (%)		100
VAPOR DENSITY (AIR = 1)	6	EVAPORATION RATE (Water = 1)		> 1
SOLUBILITY IN WATER	Reacts			

APPEARANCE AND ODOR Colorless to yellow liquid; pungent irritating odor

SECTION IV: FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (METHOD USED)	270°F. Tag Open Cup	FLAMMABLE LIMITS	Lel	Uel
EXTINGUISHING MEDIA	Water, CO ₂ , foam, dry chemical		Unknown	Unknown

SPECIAL FIRE FIGHTING PROCEDURES

Excessive heat and thermal decomposition generates irritating and possibly toxic fumes and isocyanate vapors. Firefighters should wear self-contained breathing apparatus.

UNUSUAL FIRE AND EXPLOSION HAZARDS

*PLEASE DO NOT USE GENERALIZATIONS, SUCH AS PETROLEUM HYDROCARBONS, ALCOHOL, KETONES. USE SPECIFIC CHEMICAL NAMES, SUCH AS METHANOL, BENZENE, PERCHLOROETHYLENE.

SECTION V: HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

0.02 ppm

EFFECTS OF OVEREXPOSURE

Lachrymator. Irritates eyes, nose and throat. Massive exposure to high vapor concentration may cause bronchitis, bronchial spasm or pulmonary edema. May be allergenic.

EMERGENCY AND FIRST AID PROCEDURES

Remove from contaminated area. If breathing is labored, oxygen should be administered by trained personnel. Obtain medical attention.

SECTION VI: REACTIVITY DATA

STABILITY	UNSTABLE		CONDITIONS TO AVOID
	STABLE	X	Excessive heat

INCOMPATIBILITY (MATERIALS TO AVOID)

Atmospheric moisture, strong bases.

HAZARDOUS DECOMPOSITION PRODUCTS

Isocyanate vapors, CO, CO₂, traces of nitrogen oxides and HCN.

HAZARDOUS POLYMERIZATION	MAY OCCUR		CONDITIONS TO AVOID
	WILL NOT OCCUR	X	Moisture. Confinement in a closed container in the

presence of moisture may lead to dangerous pressure (CO₂) generation.

SECTION VII: SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Cover spill with sawdust or other absorbent material. Neutralize with dilute aqueous ammonia/isopropanol solution. Neutralized material (solid polyurea) is innocuous.

WASTE DISPOSAL METHOD

Sweep up. Dispose of by any standard method consistent with good industrial practice.

SECTION VIII: SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (SPECIFY TYPE)

In confined areas, chemical cartridge respirator or independent air supply face mask.

VENTILATION	LOCAL EXHAUST	Recommended	SPECIAL
	MECHANICAL (GENERAL)	Recommended	OTHER

PROTECTIVE GLOVES	Recommended	EYE PROTECTION	In face mask or wear chemical goggles.
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OTHER PROTECTIVE EQUIPMENT	None required
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SECTION IX: SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Store in unopened containers at 70-90°F. If entire content of container is not used at one time, replace outage with dry nitrogen.

OTHER PRECAUTIONS

Mildly toxic. LD₅₀ exceeds 5000 mg/kg in rats. Do not ingest.

S. J. Assony, Ph.D.

19 December 1972

PREPARED BY

DATE